

REMARKS/ARGUMENTS

Applicant has reviewed and considered the Office Action dated May 27, 2005 and the references cited therein. In response thereto, claim 1 is amended. Claims 1-10 are pending in the present application.

Rejection under 35 U.S.C. § 103

Claims 1-3 and 5-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kung in view of Nakamoto. Applicant respectfully traverses the rejection for at least the following reasons.

Claim 1 recites a flip-flop diagonal with variable viewing angles, comprises a housing body, an eyepiece adapter unit and a reflective mirror unit, characterized in that, the housing body has a cylindrical sleeve for mounting the diagonal to a telescope; the eyepiece adapter unit includes an eyepiece adapter and an eyepiece support frame, the eyepiece adapter is fixed on the eyepiece support frame, the eyepiece support frame is pivotably mounted on the housing body, thereby capable of changing the view angles by rotating the eyepiece adapter between different positions; and the reflective mirror unit includes a reflective mirror, a mirror support bracket and rotary shafts, the reflective mirror is mounted in the mirror support bracket, and the mirror support bracket is pivotally mounted on the eyepiece support frame through the rotary shafts.

Kung describes an adjusting device for adjusting a projecting direction of a view comprising: a body case 110 formed by an upper cover 111 and lower cover 112; a reflector 120 pivotally installed in the body case; a first viewing hole 114 and a second viewing hole 115 formed on the body case; an adjusting button 130 located on the upper cover 111; and a rotary arm 132 adhered on the adjusting button 130, a guide block 133 installed on the rotary arm, the guide block 133 is pivotally installed to the guide groove 122 and is movable in the guide groove 122. However, Kung does not disclose or teach the claimed invention as claim 1 patentably distinguishes from Kung in both principle and structure as discussed below.

First of all, in principle, for the purpose of discussion and comparison between the claimed invention and Kung, Applicant hereby attaches reference figures 1 and 2 as exhibits A and B, respectively, which diagrammatically show the operating principles of Kung and the claimed invention. As shown in reference figure 1, in combination of figures 5, 6 and 8 and

paragraphs [0026] ~ [0027] of Kung, the reflector of Kung pivots between a first position (0° position) where allows the passage of the light without being reflected and a second position (45° position) where the light is reflected at a right angle. In the case of the second position, Kung merely discloses an equivalent of a 90° diagonal, the same as the prior art as described in the background of the present application. Therefore, in Kung, the rotation of the reflector is designed for 1) the light traveling through without being reflected (see the top drawing in Reference Figure 1), and 2) the light being reflected at a right angle. More specifically, for Kung, when being applied to a conventional astronomical telescope, as shown in figure 8 thereof, only two observation directions (0° with the first eyepiece cylinder 440, and 90° with the second eyepiece cylinder 450) are provided. Since at the 0° position, the light travels through, such position is generally not to be used for viewing. In comparison, to the country, as shown in reference figure 2, the present invention provides the reflector that is operable within a specific pivoting/light-reflecting range. For example, in the preferred embodiments of this present invention, various viewing angles, such as 45° viewing angle (i.e. the reflector is positioned at 22.5°), 90° viewing angle (i.e. the reflector is positioned at 45°), and the other angles as described on page 6 of the present application, are provided. Kung fails to disclose or teach such variable viewing angles.

Secondly, with respect to the claimed structure, Kung does not disclose or teach that "the eyepiece adapter unit includes an eyepiece adapter and an eyepiece support frame, the eyepiece adapter is fixed on the eyepiece support frame, the support frame is pivotably mounted on the housing body, thereby capable of changing the view angles by rotating the eyepiece adapter between different positions" as recited in claim 1. In Kung, the eyepiece cylinder (corresponding to the eyepiece adapter of the claimed invention) is integrally formed with the case body. Kung fails to disclose or teach a separate eyepiece adapter unit, in particular, the eyepiece support frame of the present invention. In Kung, the reflector is rotated directly by the adjusting button 130, and two fixed eyepiece cylinders, which are perpendicular to each other, are needed. Thus, in the case of Kung, the reflector is not rotatable by the pivotal eyepiece support frame as in the claimed invention, thereby incapable of changing the viewing angles by simply rotating the eyepiece adapter between different positions as claimed in the present invention.

Nakamoto describes an ocular turret telescope system. More specifically, Nakamoto discloses a rotatable eyepiece assembly including three eyepiece barrels 24, 25 and 26 with

different sized viewing aperture. A selectable eyepiece ring 23 is rotatable relative to the eyepiece mounting cylinder 22 to use different eyepiece barrels. Further, Nakamoto describes a filter and magnification selection turret 15, which is rotatable within a transverse cylindrical housing 16 to permit a viewer to select different filters and/or magnification levels. However, in Nakamoto, the eyepiece mounting cylinder 22 are not rotatable, and reference number 17 only indicates a selector knob for the filter and magnification selection turret 15. Nakamoto refers to the switching among different eyepieces, which is totally different from the solution of changing the viewing angles of the eyepieces of the present invention. Furthermore, Nakamoto does not disclose or teach that "the eyepiece adapter unit includes an eyepiece adapter and an eyepiece support frame, the eyepiece adapter is fixed on the eyepiece support frame, the support frame is pivotably mounted on the housing body" as recited in claim 1, thereby incapable of changing the viewing angles by simply rotating the eyepiece adapter between different positions as claimed in the present invention.

Thus, the combination of Kung and Nakamoto does not result in claim 1. Therefore, Applicant respectfully submits that claim 1 patentably distinguishes over Kung in view of Nakamoto.

Claims 2-3 and 5-10 which are dependent from claim 1 are also patentable for at least the same reasons stated above.

Claim 4 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Kung in view of Nakamoto in further view of Lee. Lee also fails to remedy the deficiencies as discussed above. Lee refers to a half mirror varying apparatus for three-dimensional image displaying apparatus and discloses a combination of an arc groove 16 and a restricting shaft 24. However, Lee does not disclose or teach an eyepiece support frame, nor does Lee disclose or teach a second arc groove provided on the eyepiece support frame. Thus, claim 4 is patentable over the cited references.

Conclusion

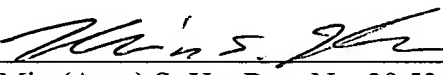
In view of the above, it is respectfully submitted that the present application is in condition for allowance. Reconsideration of the present application and a favorable response are respectfully requested.

If a telephone conference would be helpful in resolving any remaining issues, please contact the undersigned at 612-752-7367.

Respectfully submitted,

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